UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,377	05/12/2006	David A. Schleppenbach	9405-400-US-4	8224

43218   7590   05/27/2010
TAFT STETTINIUS & HOLLISTER LLP
ONE INDIANA SQUARE, SUITE 3500
INDIANAPOLIS, IN 46204-2023

EXAMINER
ADESANYA, OLUJIMI A

ART UNIT	PAPER NUMBER
2626	

NOTIFICATION DATE	DELIVERY MODE
05/27/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

efspatents@sommerbarnard.com
EFSPatents@TaftLaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/579,377
Filing Date: May 12, 2006
Appellant(s): SCHLEPPENBACH ET AL.

Keith J. Swedo
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9 September 2009 appealing from the Office

action mailed 8 June 2009.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial

proceedings which will directly affect or be directly affected by or have a bearing on the

Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Pending: Claims 1-5 and 7-21

Cancelled: None

Allowed: none

Rejected Claims 1-5 and 7-21

Withdrawn Claims 1-5, 7-16 and 18-21

Appealed: Claim 17 (Claim 17 is dependent on rejected claims 1 and 12)

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of

amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter

contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of

rejection to be reviewed on appeal. Every ground of rejection set forth in the Office

action from which the appeal is taken (as modified by any advisory actions) is being

maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are

provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in

the Appendix to the appellant's brief.

(8) Evidence Relied Upon

US 5,572,625   Raman et al   Nov 1996

US 6,665,642 B2   Kanevsky et al   Dec 2003

"MATHSPEAK from Abe Nemeth"   Miller   Aug 1995

"Audio Formatting-presenting structured information aurally"   Raman et al   July

1995

"JAWS for Windows"   LargePrint Publication ("LargePrint")   Oct 2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1-4, 7, 10-14 and 19-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Raman et al US 5,572,625 ("Raman") in view of Miller

("MATHSPEAK from Abe Nemeth") ("Miller")

As to **claim 1**, Raman discloses a method of communicating a technical notation to a user, the method comprising the steps of:

converting the notation into data (mathematical expressions, Abstract, col. 4, In 23-24), inputting the data into a processor to produce inputted data for processing (recognizer, col 4, In 22-38), said processing including using a lexicon to convert the inputted data into outputted data (lexical analyzer, col 4, In 22-38),

and outputting the outputted data into a format decipherable by the user (audio output, col 4, In 22-38; col. 1, In 13-21).

Raman does not explicitly the lexicon including reserved words, each of the reserved words preceding a respective data element and independently indicating a level of the respective data element within a hierarchy of subscripts and superscripts relative to a base level

However, this feature is well known as is evidenced by **Miller** who teaches:

the lexicon including reserved words, each of the reserved words preceding a respective data element and independently indicating a level of the respective data element within a hierarchy of subscripts and superscripts relative to a base level (subscripts and superscripts, "x sup 2", return to the base level, "e sup x sup-sub I plus j", pg 5, subscripts and superscripts as reserved words, subscript and superscript indicating the level of the data (x sup 2 as representation of x2) relative to the base level of data element x)

At the time of the invention, it would have been obvious to one of ordinary skill in the

art to implement reserved words, each of the reserved words preceding a respective

data element and independently indicating a level of the respective data element within

a hierarchy of subscripts and superscripts relative to a base level in Raman's lexicon, so

as to indicate current level and change in level within the data (Miller, pg 4)

As to **claim 2**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein at least one code selected from a code group comprising

LATEX, XML, and SGML is used during said converting step (Abstract).

As to **claim 3**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein the notation is from a digital file selected from a format

group comprising a text file, a Microsoft Word file (word processors, col. 3, In 7-10), an

Adobe Acrobat file, an HTML document, an XML document, an xHTML document, a

Quark Express document, a Word Perfect document, an SGML document, and an

Adobe PageMaker document that is converted through use of said converting step.

As to **claim 4**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein the notation is a printed page that is converted through

use of said converting step (col. 3, In 52-64).

As to **claim 7**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein said outputting step includes configuring the outputted data

into a format decipherable by the user having print disabilities (Abstract, claim 1).

As to **claim 10**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein said outputting step generates a visual output stream for

display as an image (Abstract, col. 23, In 22-24).

As to **claim 11**, Raman in view of Miller disclose the method of claim 10,

Raman discloses wherein the visual output stream is directed to at least one from an

output stream group comprising a web browser and a document (visual browsing,

document, col. 32, ln 35 - col. 33, ln 27).

As to **claim 12**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein an audio output stream is generated through use of said

outputting step (Abstract).

As to **claim 13**, Raman in view of Miller disclose the method of claim 12,

Raman discloses wherein said outputting step utilizes a text-to-speech converter

(Synthesizer, Abstract).

As to **claim 14**, Raman in view of Miller disclose the method of claim 1,

Raman discloses wherein said outputting step generates a text output stream (col. 2,

ln 65 - col. 3 ln 5)

As to **claim 19**, Raman in view of Miller disclose the method of claim 12,

Raman discloses wherein the audio output stream includes at least one of stereo,

pitch change, and different voices to convey differences in content or context (stereo,

col. 15, ln 9-20; claim 1).

As to **claim 20**, Raman in view of Miller disclose the method of claim 1

Raman does not explicitly disclose wherein the reserved words are each comprised of

"script" preceded by a combination of one or more of "sub" and "super".

However, this feature is well known as is evidenced by **Miller** who teaches:

the reserved words are each comprised of "script" preceded by a combination of one

or more of "sub" and "super" (superscript, subscript, pg 5)

At the time of the invention, it would have been obvious to one of ordinary skill in the art to implement reserved words, wherein the reserved words are each comprised of "script" preceded by a combination of one or more of "sub" and "super", so as to indicate the position of the data (Miller, pg 5)

As to **claim 21**, Raman in view of Miller disclose the method of claim 1

Raman does not explicitly disclose wherein the use of the lexicon enables the user to deduce the level of the respective data element without waiting for a subsequent context cue.

However, this feature is well known as is evidenced by **Miller** who suggests:

wherein the use of the lexicon enables the user to deduce the level of the respective data element without waiting for a subsequent context cue (new level, change in level, pg 4, since Miller discloses introducing subscripts and superscripts into the data notation when a new level is encountered and when a level change occurs, this suggests enabling enables the user to deduce the level of the respective data element without waiting for a subsequent context cue)

At the time of the invention, it would have been obvious to one of ordinary skill in the art to implement the lexicon wherein the use of the lexicon enables the user to deduce the level of the respective data element without waiting for a subsequent context cue, so as to indicate the position of the data and help to effectively describe the notation (Miller, pg 5)

1.   **Claims 5 and 8-9** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Raman in view of Kanevsky et al US 6,665,642 B2 ("Kanevsky"- '892).

As to **claim 5**, Raman in view of Miller disclose the method of claim 1,

Raman does not explicitly disclose wherein the notation is an audio source that is

converted through use of said converting step.

However, this feature is well known as is evidenced by **Kanevsky** who teaches:

wherein the notation is an audio source (col 13, ln 5-18).

At the time of the invention, it would have been obvious to one of ordinary skill in the

art to utilize a system wherein the notation is an audio source that is converted through

use of said converting step so as to provide output to hearing- impaired user (Kanevsky,

col 13, ln 5-18)

As to **claim 8**, Raman in view of Miller disclose the method of claim 1, wherein said

outputting step includes generating a Braille output stream.

Raman does not explicitly discloses wherein said outputting step includes

generating a Braille output stream

However, this feature is well known as is evidenced by **Kanevsky** who teaches:

wherein said outputting step includes generating a Braille output stream

At the time of the invention, it would have been obvious to one of ordinary skill in the

art to utilize a system wherein said outputting step includes generating a Braille output

stream so as to provide output to a blind or seeing-impaired user (Kanevsky, col. 7, ln

60-63)

As to **claim 9,** Raman in view of Miller and Kanevsky disclose the method of claim 8,

Raman does not explicitly discloses wherein the Braille output stream produced

through the use of said outputting step is in an output group comprising a display, a web

site, a Braille display, and a Braille-printed page

However, this feature is well known as is evidenced by **Kanevsky** who teaches:

wherein the Braille output stream produced through the use of said outputting step is in

an output group comprising a display, a web site, a Braille display, and a Braille-printed

page (col. 7, ln 56-63)

At the time of the invention, it would have been obvious to one of ordinary skill in

the art to utilize a system wherein the Braille output stream produced through the use of

said outputting step is in an output group comprising a display, a web site, a Braille

display, and a Braille-printed page so as to provide output to a blind or seeing-impaired

user (Kanevsky, col. 7, ln 60-63).

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raman

in view of Miller as applied to claim 12, and further in view of Raman et al ("Audio

Formatting-presenting structured information aurally") ("Raman2")

As to **claim 15**, Raman in view of Miller disclose the method of claim 12

Raman in view of Miller does not explicitly disclose wherein the audio output stream

includes a first voice for content and a second voice for the reserved words.

However this feature is well known as is suggested by **Raman2** who suggests:

wherein the audio output stream includes a first voice for content and a second voice for

the reserved words (spoken, customized to read superscripts ....higher pitched voice,

Introduction, par. 2; male, female, sec 2.1, a high pitched voice suggests a female

speaker).

At the time of the invention, it would have been obvious to one of ordinary skill in the

art to utilize a wherein the audio output stream includes a first voice for content and a

second voice for the reserved words, so as to signify a change in the output (changing

fonts..., Raman2, sec 2.1).

As to **claim 16**, Raman in view of Miller disclose the method of claim 12

Raman in view of Miller does not explicitly disclose wherein the audio output stream

includes a male voice for content and a female voice for the reserved words.

However this feature is well known as is suggested by **Raman2** who suggests:

wherein the audio output stream includes a male voice for content and a female voice

for the reserved words (spoken, customized to read superscripts ....higher pitched

voice, Introduction, par. 2; male, female, sec 2.1, a high pitched voice suggests a

female speaker).

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raman

in view of LargePrint Publication "JAWS for Windows" (hereinafter – "LargePrint")

As to **claim 17**, Raman in view of Miller disclose the method of claim 12 and a voice

synthesizer for outputting the analyzed text

Raman does not explicitly disclose wherein the audio output stream is settable to

different levels of verbosity.

However this feature is well known as is evidenced by **LargePrint** (read aloud

text....speech synthesizers available, and...can be fully customized....select

from...male and female voices...You can also adjust the verbosity (how much and what

information is read).....pg 1, par 2, synthesized male and female voices reading aloud

text as audio output)

At the time of the invention, it would have been obvious to one of ordinary skill in the

art to modify Raman's teaching by setting the level of verbosity of the audio output

stream dependent upon how much information a reader requires or desires, so as to

control the amount of synthesized audio provided to the user (LargePrint, pg 1).

(10) Response to Argument

Appellant argues that neither Raman nor LargePrint disclose the patentable

subject matter of claim 17, the different verbosity levels, as defined by the present

specifications or "an output stream settable to different levels of verbosity as recited by

claim 17, and that LargePrint further teaches away from the invention of claim 17

(Appeal Brief, pg 9 -11, sec A 1 – A iii, 11/09/2009) Appellant further argues that

neither Raman nor LargePrint discloses limitation "the lexicon including reserved words,

each of the reserved words preceding a respective data element and independently

indicating a level of the respective data element within a hierarchy of subscripts and

superscripts relative to a base level" which was recited in claim 1 (Appeal Brief, pg 11-

12, sec 2, 11/09/2009). The examiner respectfully disagrees.

Claim 17 is a claim dependent on **claim 12** which is further dependent on **claim 1**.

Raman in **claim 1**, discloses a method of communicating a technical notation to a

user, the method comprising the steps of converting the notation into data

(mathematical expressions, Abstract, col. 4, In 23- 24), inputting the data into a
processor to produce inputted data for processing (recognizer, col 4, In 22-38), said
processing including using a lexicon to convert the inputted data into outputted data
(lexical analyzer, col 4, In 22-38) and outputting the outputted data into a format
decipherable by the user (audio output, col 4, In 22-38; col. 1, In 13-21).

Raman does not explicitly disclose "the lexicon including reserved words, each of
the reserved words preceding a respective data element and independently indicating a
level of the respective data element within a hierarchy of subscripts and superscripts
relative to a base level"

However, this feature is well known as is evidenced by **Miller** (subscripts and
superscripts, "x sup 2", return to the base level, "e sup x sup-sub I plus j", pg 5,
subscripts and superscripts as reserved words, subscript and superscript indicating the
level of the data (x sup 2 as representation of x2) relative to the base level of data
element x)

Raman in view of Miller, in the rejection of **claim 12**, disclose the method of
claim 1, Raman discloses wherein an audio output stream is generated through use of
said outputting step (Abstract).

Raman in view of Miller, in the rejection of **claim 17,** discloses the method of claim
12, and a voice synthesizer for outputting the analyzed text.

Raman does not explicitly disclose wherein the audio output stream is settable to
different levels of verbosity.

However this feature is well known as is evidenced by **LargePrint** (read aloud

text….speech synthesizers available, and…can be fully customized….select from…male and female voices...You can also adjust the verbosity (how much and what information is read)…..pg 1, par 2, synthesized male and female voices reading aloud text as audio output). This forms the basis of the examiner's rejection of **claim 17** which is dependent on **claim 12** which is further dependent on **claim 1**.

As per Appellant's arguments that Raman in view of LargePrint do not disclose "wherein the audio output stream is settable to different levels of verbosity" the examiner respectfully disagrees because LargePrint which was applied to teach the said limitation, discloses speech synthesizers that provide audio output by reading out words/text written on a screen, and adjusting the verbosity which is the amount of words/text the user wants the synthesizers to read out in form of audio output (read aloud text….speech synthesizers available, and…can be fully customized….select from…male and female voices...You can also adjust the verbosity (how much and what information is read)…..pg 1, par 2, synthesized male and female voices reading aloud text as audio output) Therefore the examiner maintains that Raman in view of Miller and LargePrint disclose the limitations of claim 17.

As per Appellant's arguments that LargePrint do not disclose different verbosity levels as the term is defined in the specification,

In response to Appellant's argument that the references fail to show certain features of Appellant's invention, it is noted that the features upon which Appellant relies (i.e., Different levels of verbosity - Maximum Verbosity, Verbose, brief, SuperBrief….etc or abbreviation of words in audio output) are not recited in the rejected claim(s). Although

the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057

(Fed. Cir. 1993).

Since these features are not recited in the claim, and LargePrint discloses

synthesizers that provide audio output by reading out words/text written on a screen,

and adjusting the verbosity which is the amount of words/text the user wants the

synthesizers to read out in form of audio output (LargePrint, pg 1, par 2), the examiner

maintains that LargePrint discloses the limitations of claim 17

As per Appellant's arguments that LargePrint do not disclose an output stream

settable to different levels of verbosity, Appellant argues that LargePrint does not alter

an existing output based on a level of verbosity, does not change the verbosity of

individual words that make up an output stream and doe not shorten words according to

abbreviations when adjusting verbosity settings.

The examiner respectfully disagrees because LargePrint discloses: speech

synthesizers that provide audio output by reading out words/text written on a screen,

and adjusting the verbosity which is the amount of words/text the user wants the

synthesizers to read out in form of audio output (LargePrint, pg 1, par 2) and features

upon which Appellant relies (i.e., altering an existing output based on a level of

verbosity, changing the verbosity of individual words that make up an output stream and

shortening words according to abbreviations when adjusting verbosity settings) are not

recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re*

Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore the examiner

maintains that LargePrint discloses the limitations of claim 17.

As per Appellant's arguments that LargePrint teaches away from the invention of

claim 17, Appellant argues that LargePrint teaches away from "selecting words for

inclusion in the output list based on whether the words are abbreviated" and therefore

LargePrint does not disclose level of abbreviation or non-abbreviation when determining

what to include in the audio output. The examiner respectfully disagrees because the

claims do not recite abbreviation or non-abbreviation of words, or selecting words for

inclusion in the output list based on whether the words are abbreviated. Claim 17 recites

"the method of claim 12, wherein the audio output stream is settable to different levels

of verbosity" with no mention of selection or abbreviation of words. Likewise claims 12

and 1 do not recite or mention selection or abbreviation of words to be included in audio

output based on abbreviation.

In response to Appellant's argument that the references fail to show certain features

of Appellant's invention, it is noted that the features upon which Appellant relies (i.e.,

abbreviation or non-abbreviation of words, or selecting words for inclusion in the output

list based on whether the words are abbreviated) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the

specification are not read into the claims See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993). LargePrint discloses limitation "the method of claim 12,

wherein the audio output stream is settable to different levels of verbosity" (LargePrint,

pg 1, par 2). Appellant's specification does not link verbosity to abbreviation of words as

argued by appellant, instead, Verbosity is generally described in terms of controlling

levels of audio output by lengthening or shortening the audio stream in the

specifications, with examples of ways to achieve this including: Maximum verbosity,

verbose, Brief Verbosity and SuperBrief Verbosity levels (original Specifications, pg 10,

ln 31 – pg 11, ln 4). LargePrint discloses adjusting the verbosity of audio output by

varying how much information is output to a user (read aloud text….speech

synthesizers available, and…can be fully customized….select from…male and female

voices...You can also adjust the verbosity (how much and what information is

read)…..pg 1, par 2, synthesized male and female voices reading aloud text as audio

output) Therefore the examiner maintains that LargePrint disclose the limitations of

claim 17 and does not teach away from the claimed.

As per Appellant's arguments regarding claim 1, Appellant argues that Raman

and LargePrint do not disclose "a lexicon including reserved words, each of the

reserved words preceding a respective data element and independently indicating a

level of the respective data element within a hierarchy of subscripts and superscripts

relative to a base level" <u>The examiner respectfully disagrees because neither Raman</u>

<u>nor LargePrint was applied in teaching the limitation which Appellant argues they did not</u>

<u>teach. Miller "MATHSPEAK from Abe Nemeth" was applied in teaching this limitation as</u>

<u>provided above</u> (emphasis added). Claim 1 recites "a method of communicating a

technical notation to a user, the method comprising the steps of converting the notation

into data, inputting the data into a processor to produce inputted data for processing,

said processing including using a lexicon to convert the inputted data into outputted

data" Raman teaches those limitations:

converting the notation into data (mathematical expressions, Abstract, col. 4, ln 23-

24) inputting the data into a processor to produce inputted data for processing

(recognizer, col 4, ln 22-38) and said processing including using a lexicon to convert the

inputted data into outputted data (digitized source document....lexical

analyzer...transforms source document into a structured internal

representation...operate upon the internal representation....to producing audio

output...., col 4, ln 22-38, lexicon inherent in recognizer including a lexical analyzer that

converts input source documents into output data).

What Raman does not explicitly teach is the lexicon "including reserved words, each

of the reserved words preceding a respective data element and independently indicating

a level of the respective data element within a hierarchy of subscripts and superscripts

relative to a base level" **Miller** discloses this limitation (subscripts and superscripts, "x

sup 2", return to the base level, "e sup x sup-sub l plus j", pg 5, subscripts and

superscripts as reserved words, subscript and superscript indicating the level of the

data (x sup 2 as representation of x2) relative to the base level of data element x) with

the abbreviations of the subscripts and superscripts (sub and sup respectively)

preceding data elements "x", "j" and indicating levels of the data elements relative to the

base level. When combined with Raman with the suggestion of indicating current level

and change in level within the data as discussed by Miller (pg 4), the combination of

Raman and Miller disclose the limitations of claim 1. Therefore the examiner maintains

the rejections.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/OLUJIMI A ADESANYA/

Examiner, Art Unit 2626

/Richemond Dorvil/
Supervisory Patent
Examiner, Art Unit 2626

Conferees:

Richemond Dorvil

James Wozniak

/James S. Wozniak/

Primary Examiner, Art Unit 2626